

**Listing of the Claims:**

The listing of claims replaces all prior versions, and listing, of claims in the application.

1. (Previously Presented) A method for modifying an optical medium, the medium having a plurality of operational characteristics, each operational characteristic having a predefined limit, comprising:

selecting a region of the medium to be modified; and

modifying the medium in the region to have a first actual characteristic that is at or near a predefined limit of a first of the plurality of operational characteristics prior to a read operation of the medium; and

modifying the medium in the region to have a second actual characteristic that is at or near a predefined limit of a second of the plurality of operational characteristics prior to a read operation of the medium;

such that during a read operation of data stored in the modified region, the read operation is altered in the modified region as a result of the modifications such that the first and second actual characteristics of the modified medium cause a slow-down in the read operation when the modified region is read, the modified region maintaining its optical characteristics following irradiation of the modified region during the read operation,

wherein the first of the plurality of operational characteristics is distortion size and wherein modifying the medium to have the first actual characteristic comprises modifying the medium to have a distortion of a size that is at or near the predefined limit of the operational characteristic for distortion size and wherein the size of the distortion is based on a first size of a physical deformation and a second size of a local corresponding region of increased birefringence.

2. (Original) The method of claim 1 wherein modifying the medium comprises modifying the medium to have a distortion of a size that is approximately the predefined limit of the operational characteristic for distortion size.

3. (Previously Presented) The method of claim 2 wherein the distortion is formed in a reading layer of the medium through which an optical path is directed.
4. (Original) The method of claim 2 wherein the distortion comprises an air bubble formed in the reading layer, a particle deposited in the reading layer, an indentation formed in an outer surface of the reading layer, or a convex feature formed in an outer surface of the reading layer.
5. (Original) The method of claim 2 wherein the distortion is formed in a reflective layer of the medium.
6. (Cancelled)
7. (Original) The method of claim 1 wherein modifying the medium comprises modifying the medium to have adjacent distortions that are spaced apart by a length that is approximately the predefined limit of the operational characteristic for length between adjacent distortions
8. (Original) The method of claim 1 wherein modifying the medium comprises modifying the medium to have a region of increased birefringence.
9. (Previously Presented) The method of claim 1 wherein modifying the medium comprises modifying the medium to have a refraction index value that is approximately at the predefined limit of the operational characteristic for a range of acceptable refraction index values.
10. (Original) The method of claim 1 wherein modifying the medium comprises modifying the medium to have a reflection value that is approximately at the predefined limit of the operational characteristic for reflection value.
11. (Original) The method of claim 1 wherein the selected region comprises a data region or a pre-track region of a medium.

12. (Previously Presented) An optical medium having data structures and a plurality of operational characteristics, each operational characteristic having a predefined limit, the optical medium having the data structures being modified in a modified region to have a distortion and to have a first actual characteristic at or near a predefined limit of a first of the plurality of operational characteristics prior to a read operation; and the optical medium having the data structures being modified in the modified region to have a second actual characteristic at or near a predefined limit of a second of the plurality of operational characteristics prior to a read operation, such that during a read operation of the data structures in the modified region, the read operation is altered in the modified region as a result of the modifications such that the first and second actual characteristics of the modified medium cause a slow-down in the read operation when the modified region is read, the modified region maintaining its optical characteristics following irradiation of the modified region during the read operation,

wherein the first of the plurality of operational characteristics is distortion size and wherein the distortion is of a size that is at or near the predefined limit of the operational characteristic for distortion size and wherein the size of the distortion is based on a first size of a physical deformation and a second size of a local corresponding region of increased birefringence.

13. (Original) The optical medium of claim 12 wherein the medium is modified to have a distortion of a size that is approximately the predefined limit of the operational characteristic for distortion size.

14. (Previously Presented) The optical medium of claim 13 wherein the distortion is formed in a reading layer of the medium through which an optical path is directed.

15. (Original) The optical medium of claim 13 wherein the distortion comprises an air bubble formed in the reading layer, a particle deposited in the reading layer, an indentation formed in an outer surface of the reading layer, or a convex feature formed in an outer surface of the reading layer.

16. (Previously Presented) The optical medium of claim 12 wherein a distortion is formed in a reflective layer of the medium.

17. (Cancelled)

18. (Original) The optical medium of claim 12 wherein the medium is modified to have adjacent distortions that are spaced apart by a length that is approximately the predefined limit of the operational characteristic for length between adjacent distortions

19. (Original) The optical medium of claim 12 wherein the medium is modified to have a region of increased birefringence.

20. (Previously Presented) The optical medium of claim 12 wherein the medium is modified to have a refraction index value that is approximately at the predefined limit of the operational characteristic for a range of acceptable refraction index values.

21. (Original) The optical medium of claim 12 wherein the medium is modified to have a reflection value that is approximately at the predefined limit of the operational characteristic for reflection value.

22. (Original) The optical medium of claim 12 wherein the selected region comprises a data region or a pre-track region of a medium.

23. (Previously Presented) A method for modifying an optical medium, the medium having a plurality of operational characteristics, each operational characteristic having a predefined limit, comprising:

selecting a region of the medium to be modified; and

modifying the medium in the region to have a first actual characteristic that is at or near a predefined limit of a first of the plurality of operational characteristics prior to a read operation of the medium; and

modifying the medium in the region to have a second actual characteristic that is at or near a predefined limit of a second of the plurality of operational characteristics prior to a read operation of the medium;

such that during a read operation of data stored in the modified region, the read operation is altered in the modified region as a result of the modifications such that the first and second actual characteristics of the modified medium cause a slow-down in the read operation when the modified region is read, the modified region maintaining its optical characteristics following irradiation of the modified region during the read operation;

wherein modifying the medium comprises modifying the medium to have a distortion formed in a reflective layer of the medium,

wherein the first of the plurality of operational characteristics is distortion size and wherein modifying the medium to have the first actual characteristic comprises modifying the medium to have a distortion of a size that is at or near the predefined limit of the operational characteristic for distortion size and wherein the size of the distortion is based on a first size of a physical deformation and a second size of a local corresponding region of increased birefringence.

24. (Previously Presented) The method of claim 23 wherein modifying the medium comprises modifying the medium to have the distortion of a size that is approximately the predefined limit of the operational characteristic for distortion size.

25. (Cancelled)

26. (Previously Presented) The method of claim 23 wherein modifying the medium comprises modifying the medium to have adjacent distortions that are spaced apart by a length that is approximately the predefined limit of the operational characteristic for length between adjacent distortions

27. (Previously Presented) The method of claim 23 wherein modifying the medium comprises modifying the medium to have a region of increased birefringence.

28. (Previously Presented) The method of claim 23 wherein modifying the medium comprises modifying the medium to have a refraction index value that is approximately at the predefined limit of the operational characteristic for a range of acceptable refraction index values.

29. (Previously Presented) The method of claim 23 wherein modifying the medium comprises modifying the medium to have a reflection value that is approximately at the predefined limit of the operational characteristic for reflection value.

30. (Previously Presented) The method of claim 23 wherein the selected region comprises a data region or a pre-track region of a medium.

31. (Previously Presented) The method of claim 23 wherein the reflective layer is adjacent a data layer along a path of a track.

32. (Previously Presented) An optical medium having data structures and a plurality of operational characteristics, each operational characteristic having a predefined limit, the optical medium having the data structures being modified in a modified region to have a distortion and to have a first actual characteristic at or near a predefined limit of a first of the plurality of operational characteristics prior to a read operation; and the optical medium having the data structures being modified in the modified region to have a second actual characteristic at or near a predefined limit of a second of the plurality of operational characteristics prior to a read operation, such that during a read operation of the data structures in the modified region, the read operation is altered in the modified region as a result of the modifications such that the first and second actual characteristics of the modified medium cause a slow-down in the read operation when the modified region is read, the modified region maintaining its optical characteristics following irradiation of the modified region during the read operation, wherein the medium is modified in the modified region to have a distortion formed in a reflective layer of the medium, wherein the first of the plurality of operational characteristics is distortion size and wherein the distortion is of a size that is approximately the predefined limit of the operational characteristic for distortion size and wherein the size of the distortion is based on a first size of a

physical deformation and a second size of a local corresponding region of increased birefringence.

33. (Previously Presented) The optical medium of claim 32 wherein the medium is modified to have the distortion of a size that is approximately the predefined limit of the operational characteristic for distortion size.

34. (Cancelled)

35. (Previously Presented) The optical medium of claim 32 wherein the medium is modified to have adjacent distortions that are spaced apart by a length that is approximately the predefined limit of the operational characteristic for length between adjacent distortions

36. (Previously Presented) The optical medium of claim 32 wherein the medium is modified to have a region of increased birefringence.

37. (Previously Presented) The optical medium of claim 32 wherein the medium is modified to have a refraction index value that is approximately at the predefined limits of the operational characteristic for range of acceptable refraction index values.

38. (Previously Presented) The optical medium of claim 32 wherein the medium is modified to have a reflection value that is approximately at the predefined limit of the operational characteristic for reflection value.

39. (Previously Presented) The optical medium of claim 32 wherein the selected region comprises a data region or a pre-track region of a medium.

40. (Previously Presented) The optical medium of claim 32 wherein the reflective layer is adjacent a data layer along a path of a track.

41. (Previously Presented) A method for modifying an optical path of an optical medium, the optical medium including a first layer adjacent a reflective layer adjacent a data layer comprising:

selecting a region of the optical medium be distorted; and

prior to a reading operation of the medium, distorting the region of the optical medium in the reflective layer adjacent the data layer of the optical medium such that a reading operation of data stored in the data layer corresponding to the distorted region is modified, the distorted region maintaining its optical characteristics following irradiation of the distorted region during the reading operation.

42. (Previously Presented) The method of claim 41 wherein the first layer comprises a reading layer.

43. (Previously Presented) The method of claim 41 wherein distorting the reflective layer comprises distorting the reflective layer along a path of a track and below a protective outer surface.

44. (Previously Presented) An optical medium having a modified optical path comprising:  
a first layer adjacent a reflective layer adjacent a data layer; and  
a distorted region of the optical medium formed in the reflective layer adjacent the data layer of the optical medium prior to a reading operation of the medium such that a reading operation of data stored in the data layer corresponding to the distorted region is modified, the distorted region maintaining its optical characteristics following irradiation of the distorted region during the reading operation.

45. (Previously Presented) The optical medium of claim 44 wherein the first layer is a reading layer.

46. (Previously Presented) The method of claim 44 wherein the distorted region formed at the reflective layer comprises distorting the reflective layer along a path of a track and below a protective outer surface.



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47. (Previously Presented) An optical medium modified according to the method of claim 1.